

REMARKS

Prior to entry of the present amendment, claims 1-4 and 12-41 are pending in the present application. Claims 34-41 are canceled above. Claims 18, 21, and 25 are amended above. No new matter is added by the claim amendments. Entry is respectfully requested.

The Applicant reiterates that the Office Action Summary does not indicate whether the drawings filed in the application are acceptable. Confirmation of their acceptability is respectfully requested.

Claims 18-28 are objected to for reasons stated at page 2 of the Office Action. Claims 18, 21, and 25 are amended above in a manner that is believed to overcome the objections. Entry is respectfully requested.

The applicants note with appreciation that page 5, paragraph 3, of the Office Action indicates that claims 1-4 and 12-17 are allowed. The applicants further note with appreciation that page 5, paragraphs 1 and 2 indicate that claims 18, 21, and 25 would be allowable if amended to overcome the stated objections, and that claims 19-20, 22-24, and 26-28 would be allowable if rewritten in independent form. As stated above, claims 18, 21, and 25 are amended above in a manner that is believed to overcome the objections. Entry of the amendments, removal of the objections, and allowance of claims 18, 21, and 25, and claims 19-20, 22-24, and claims 26-28, dependent thereon, are therefore respectfully requested.

Claims 29, 32, 34, 37, 38, and 41 stand rejected under 35 U.S.C. 102(b) as being anticipated by Chien, *et al.* (U.S. Patent Number 6,010,942 - hereinafter "Chien"). Claims 30, 31, 33, 35, 36, 39, 40 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Chien, in view of Lee, *et al.* (U.S. Patent No. 6,287,910 - hereinafter "Lee"). Reconsideration and removal of the rejections are respectfully requested.

With regard to the rejection of claims 34-41, these claims are canceled above. These rejections are therefore believed to be no longer applicable in view of the canceled claims. Removal of the rejections of claims 34-41 is respectfully requested.

With regard to the rejection of claim 29, it is submitted that Chien fails to teach or suggest “performing a primary wet treatment on a surface of the lower metal electrode to remove unwanted surface oxides from the surface of the lower metal electrode, wherein the primary wet treatment is performed using an etchant containing SC1,” as claimed in independent claim 29. Instead, Chien discloses a first wet chemical procedure, wherein a solution of NH₄OH and H₂O₂ is used to remove CMP slurry and HSG silicon particles 15 from the top surface of a photoresist plug 14b (see Chien, FIGs. 5-6, column 3, lines 18-20, and column 5, lines 40-46). Next, the photoresist plug 14b is removed (see Chien, FIG. 7 and column 5, lines 47-48). Next, a second wet treatment is performed to prepare the surface of the HSG silicon/polysilicon crown-shaped node structure, the second wet treatment using a dilute hydroflouric (HF) acid, followed by a solution comprising H₂SO₄ and H₂O₂ (see Chien, column 3, lines 21-25). Instead, the first wet chemical procedure of Chien is used to remove CMP slurry and HSG silicon particles from the top surface of the photoresist plug 14b, and not “from the surface of the lower metal electrode.” There is no mention in Chien of the first wet chemical procedure being performed to “remove unwanted surface oxides from the surface of the lower metal electrode” (emphasis added), as claimed in claim 29. Thus, it follows that the first wet chemical procedure of Chien is not the “primary wet treatment,” as claimed in claim 29. Reconsideration and removal of the rejection of independent claim 29, and allowance of the claim, are therefore respectfully requested.

With regard to the rejection of claim 32, it is submitted that this claim should inherit the allowability of claim 29, from which it depends. Allowance of claim 32 is respectfully requested.

With regard to the rejection of claims 30, 31, and 33 over the combination of Chien and Lee, it is submitted that Lee likewise fails to teach or suggest “performing a primary wet

treatment on a surface of the lower metal electrode to remove unwanted surface oxides from the surface of the lower metal electrode, wherein the primary wet treatment is performed using an etchant containing SC1," as claimed in claims 30, 31, and 33. In view of this, since the Chien and Lee references fail to teach or suggest the claimed features set forth in independent claim 29, there is no way to combine the references to obtain such teaching or suggestion of the claimed features, and therefore, there is no combination of the references that teaches or suggests the invention set forth in claims 30, 31, and 33. Claims 30, 31, and 33 are therefore believed to be allowable over the cited references. Accordingly, reconsideration of the rejections of claims 30, 31, and 33 under 35 U.S.C. 103(a) based on Chien and Lee, and allowance of the claims, are respectfully requested.

Closing Remarks

It is submitted that all claims are in condition for allowance, and such allowance is respectfully requested. If prosecution of the application can be expedited by a telephone conference, the Examiner is invited to call the undersigned at the number given below.

Respectfully submitted,

Date: September 1, 2005
Mills & Onello, LLP
Eleven Beacon Street, Suite 605
Boston, MA 02108
Telephone: (617) 994-4900, Ext. 4902
Facsimile: (617) 742-7774



Anthony P. Onello, Jr.
Registration Number 38,572
Attorney for Applicant